

Amendments to the Specification

Please replace the abstract with the abstract on the attached sheet following this section.

Please replace the second paragraph starting on page 12 with the following paragraph:

Each object 202, 402 displayed in the administration interface 300 has a set of properties. FIG. 6 shows a CAD object properties display screen 600 that shows the properties for a particular CAD object 202. The properties screen 600 can include an icon representing the CAD object 202, the name 304, a unique object ID number 602, an object properties area 604, check boxes 606, options ~~numbers~~ 608, and descriptions 610. The unique object ID number 602 is used to distinguish individual objects 202, 402 from one another in the administration system 110. In one embodiment, the ID number 602 is not displayed on the screen 600. The object properties area 604 displays the various properties of the CAD object 202 such as surfaces, axes, parameters, and dimensions. The check boxes 606 are used for the selection of particular property options 608. It is contemplated that other manners generally known to those skilled in the art can be used to select options 608. The description filed 610 is used to describe a particular option 608.

Please replace the second paragraph starting on page 13 with the following paragraph:

FIG. 8 shows a link definition display screen 800. The link screen 800 is used to create links 502 that set conditional relationships between objects 202, 402. In the link screen 800 of FIG. 8, a link 502 is defined between a parent 504 web object 402 and a child 506 web object 402. The link screen 800 has a link definition area 802 that includes a parent properties area 804 and a child properties area 806. The check boxes 606 are used to select the relationship of properties between the parent 504 and the child 506. For example, if the designer selects the “Pan” option 608 in response to the question “What type of head on bolt?” then the answer to “Bolt_Diameter” question will only display the ~~“2mm”~~“3mm” and the “10mm” options.

Please replace the last paragraph starting on page 14 and extending through page 15 with the following paragraph:

Referring now to FIG. 14, one process 1400 for generating the modified object icon 1302 with system 100 is shown. The administration system level 1402 corresponds to the administration system 110. The administration CAD adapter level 1404 corresponds to the administration CAD adapter 108, and the CAD system level 1406 corresponds to the CAD system 102. As discussed above, the systems 102, 108, and 110 can be formed over a single level or multiple combinations of levels. In stage 1408, the administration system level 1402 initially places a request for a CAD object 202. The CAD adapter level 1404 processes the request in stage 1410 and submits the request to the CAD system level 1406. In stage 1412, the CAD system level 1406 retrieves the properties of the request CAD object 202, generates the unmodified object icon 1202, and responds to the request in stage 1414. The CAD adapter level 1404 in stage 1416 translates the properties and forwards the properties and the unmodified object icon 1202 to the administration system level. The administration system level 1402 in stage 1418 displays the unmodified object icon ~~1302~~ 1202. The administrator modifies the properties of the CAD object in stage 1420, and the administration system level ~~1420~~ 1402 sends a new icon request along with the properties to the CAD adapter level 1404. The CAD adapter level 1404 in stage 1422 instructs the CAD system level 1406 to generate a new modified icon 1302. In stage 1424, the CAD system level 1406 receives the instructions and generates the modified icon 1302 (drawing), and the CAD system level 1406 in stage 1428 responds to the CAD adapter level 1404. The CAD adapter level 1404 in stage 1430 receives the modified icon 1302, and in stage 1432, the administration system level 1402 displays the modified CAD object 1302.

Please replace the first paragraph starting on page 16 with the following paragraph:

When an end user first accesses the design system 106, the default web page from server 122 will appear that lists the available product configuration

designs and contains links to the respective product configuration forms. FIG. 15 shows one example of a product configuration form 1500 (independent interface). The configuration form 1500 includes questions 1502 and answer fields 1504. Each question 1502 corresponds to the question field 702 of a corresponding web object 402. Likewise, the options of the answer fields 1504 correspond to the description fields 610 of the web object 402. The configuration form 1500 includes output type options 1506 in which the designer can select the desired output for a submitted design. The output type options 1506 can correspond to an orphaned object 508 within the administration system 110. Further, the questions 1502 can include additional questions not specifically related to the design process such as the name of the customer, delivery constraints, and other types of questions depending on the application. The configuration form 1500 can include a submit button 1508 for submitting the completed form 1500 to the server 122 and a reset form button 1510 for resetting the form 1500.

Please replace the last paragraph starting on page 17 and extending through page 18 with the following paragraph:

When the product configuration form 1500 is submitted by the end user, in this preferred embodiment, the server CAD adapter 120 instructs the CAD system 102 how to complete the product design and the CAD system 102 generates the product design and the desired output. The output from the CAD system 102 can include a drawing of the product design, which is displayed on the client 126. Referring now to FIGS. 18-19, one process 1800 for generating an assembled object with system 100 is shown. In stage 1802, a completed product configuration form 1500 is submitted to the server ~~126~~ 122. In stage 1804, a copy of this request can optionally be stored in the database 118 for later retrieval. The server CAD adapter 120 in stage 1806 processes the request, and in stage 1808 retrieves the stored product configuration information from the database 118. In stage 1810, the server CAD adapter 120 processes the information and commands the CAD system 102 to load the CAD objects 202 of the design into memory. Further, the CAD adapter sends the property values for the individual CAD objects. The CAD system 102 in stage 1812 loads the requested CAD objects 202 into memory and modifies their properties. It is also contemplated that the CAD

system 102 can be instructed to load and modify a single CAD object 202. Stages 1814, 1816 and 1818 are optional. In stage 1814, the server CAD adapter 120 determines the assembly procedure for the CAD objects 202 and determines the desired output from the output type fields 1506 from the configuration form 1500. In stage 1816, the server CAD adapter 120 sends assembly and output instructions to the CAD system 102. The CAD system 102 in stage 1818 assembles the CAD objects 202, and in stage 1820 the output for the design is created. In one embodiment, the output includes sending a drawing of the design to the web browser of the client 126. It is contemplated that the system 100 can create (export) a wide variety of outputs including assembly files, assembly routine data, separate drawing views, drawing functions/routines, reports, assembly documentation, bill of materials, CNC control codes, web pages, and/or other types of outputs generally known by those skilled in the art. It is also contemplated that the output can be directed to other systems as inputs.